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Title:

COATING FOR TREATING SUBSTRATES FOR INK JET PRINTING INCLUDING
IMBIBING SOLUTION FOR ENHANCED IMAGE VISUALIZATION AND RETENTION,
METHOD FOR TREATING SAID SUBSTRATES, AND ARTICLES PRODUCED
THEREFROM ;

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ABSTRACT:

A method of producing a printed substrate so as to improve the adhesion, colorfastness and washfastness of either reactive or acid dye-based ink jet inks printed onto the substrate, the method includes the steps of providing a substrate, treating the substrate with an aqueous coating formulation comprising a cationic polymer or copolymer, a fabric softener, treating the substrate of step with an imbibing aqueous solution of either urea, and an ingredient selected from sodium bicarbonate, sodium carbonate or combinations thereof, or ammonium sulfate, drying the substrate, printing on the substrate with either an acid or reactive dye-based ink, depending on the coating and post treating the printed substrate.

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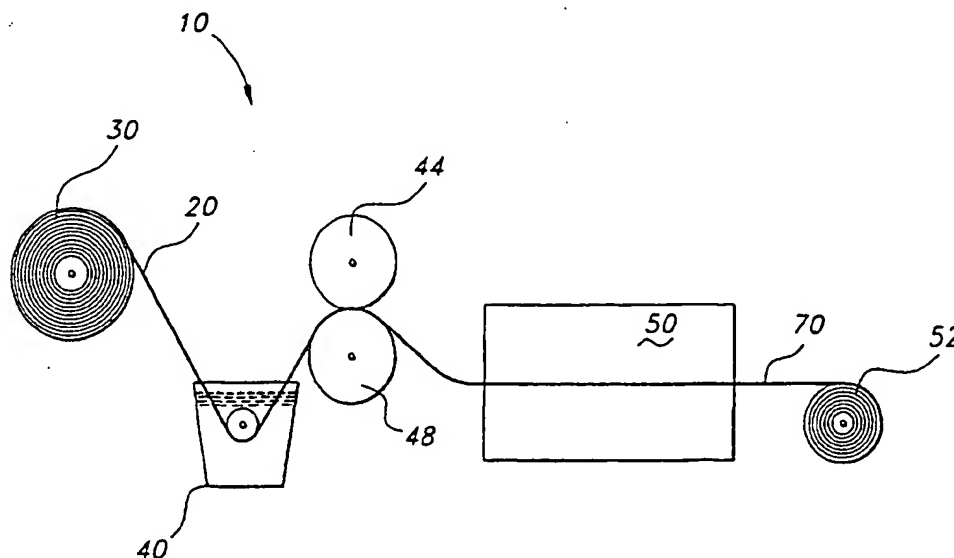
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(54) Title: COATING FOR TREATING SUBSTRATES FOR INK JET PRINTING INCLUDING IMBIBING SOLUTION FOR ENHANCED IMAGE VISUALIZATION AND RETENTION, METHOD FOR TREATING SAID SUBSTRATES, AND ARTICLES PRODUCED THEREFROM

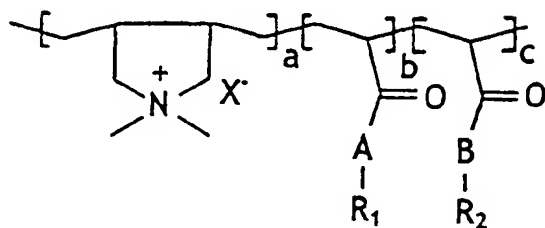
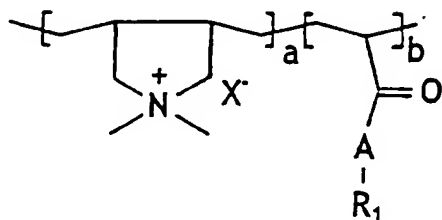
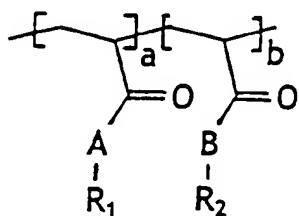
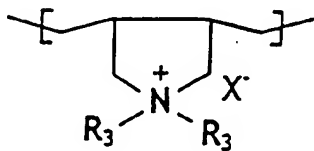
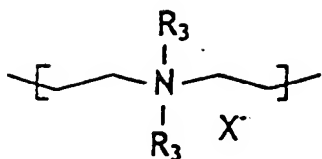


(57) Abstract: A method of producing a printed substrate so as to improve the adhesion, colorfastness and washfastness of either reactive or acid dye-based ink jet inks printed onto the substrate, the method includes the steps of providing a substrate, treating the substrate with an aqueous coating formulation comprising a cationic polymer or copolymer, a fabric softener, treating the substrate of step with an imbibing aqueous solution of either urea, and an ingredient selected from sodium bicarbonate, sodium carbonate or combinations thereof, or ammonium sulfate, drying the substrate, printing on the substrate with either an acid or reactive dye-based ink, depending on the coating and post treating the printed substrate.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A, B = O, NH, N—

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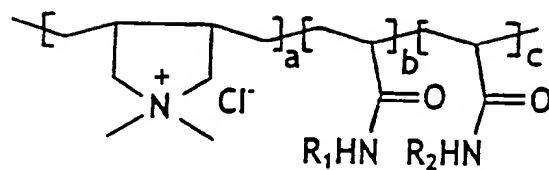
R₁, R₂ = quaternary ammonium, hydrophilic,
hydrophobic, reactive, or self condensing group

R₃ = H, alkyl, or alkoxy group

X = halogen or other counter ion

FIG. 1A

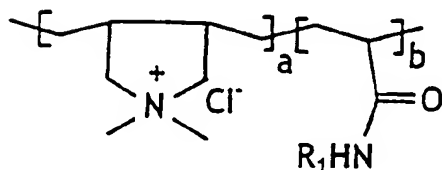
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$a = 1$ to 99% , $b = (100-a)\%$, $c = 0$ to $100-(a+b)\%$

R_1, R_2 - as above

FIG. 1B



$a = 1$ to 99% , $b = (100-a)\%$



for CP 7091 RV, $a \sim 90$; $b \sim 10$

FIG. 1C

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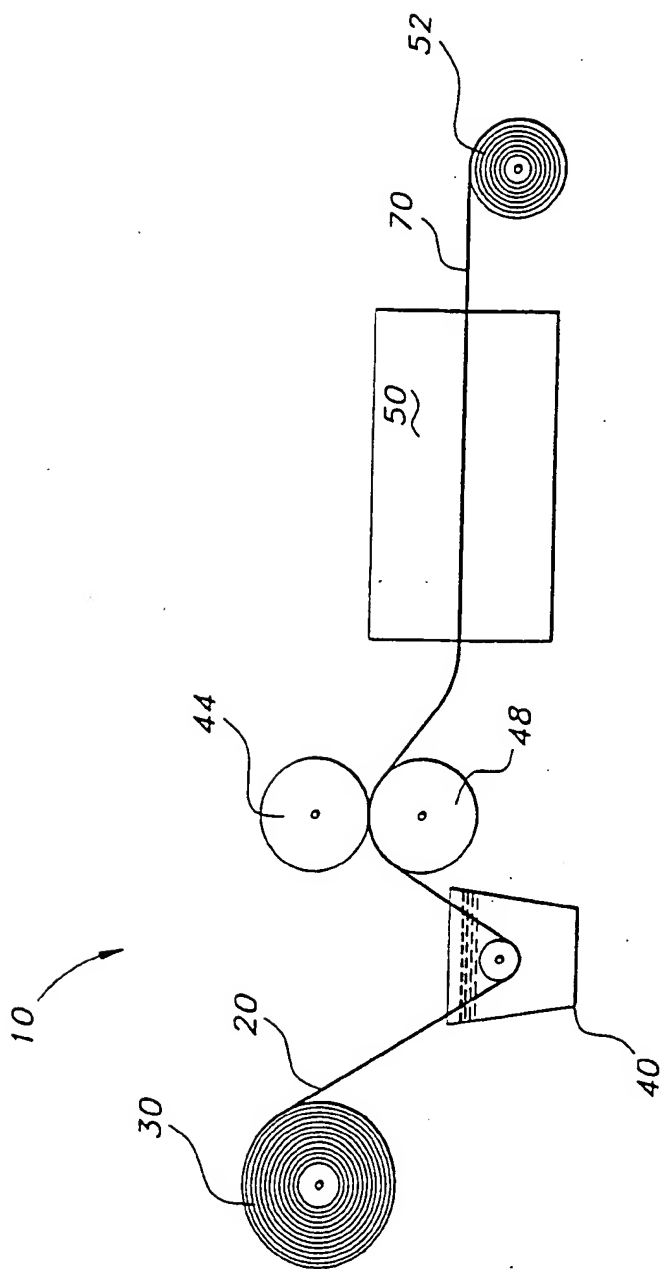


FIG. 2